

Amendments to the Claims:

Please cancel claims 1 and 12-14 without prejudice.

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Cancelled).

2. (Currently Amended) The method of claim 1 ~~18, wherein said bill acceptor-dispenser further comprises~~ comprising:

using a memory associated with said ~~validator~~ bill acceptor-dispenser and said processor ~~for maintaining to maintain~~ a running accounting of the ~~a~~ number and denominations of the notes contained in said note hopper.

3. (Currently Amended) The method of claim ~~1~~ 18, wherein said ~~bill acceptor-dispenser~~ further comprises comprising:

~~a unit controller for controlling the operation of the bill acceptor-dispenser, said unit controller being capable of changing the characteristics used for directing notes to said note hopper.~~

4. (Currently Amended) The method of claim ~~3~~ 18 wherein said processor is ~~included in said unit controller, said unit controller further calculating the~~ configured to calculate a number of notes to be dispensed from said note hopper and ~~the~~ a number of coins to be dispensed from said coin hopper to provide a combination of notes and coins to total ~~an~~ the amount of change to be dispensed ~~following the vending of an item.~~

5. (Currently Amended) The method of claim 4 wherein said processor ~~runs a~~ Control Program, said Control Program being capable of communicating is configured to communicate with the vending machine controller and ~~controlling the to control~~ display of information to a user indicating the acceptability of bill denominations.

6. – 8. (Cancelled).

9. (Currently Amended) The method of claim 1, wherein said bill acceptor-dispenser further comprises:

a bezel assembly having an opening for allowing the insertion of notes into said bill acceptor-dispenser, said bezel assembly also having a display configured to provide a visual indication of at least one bill note denomination currently accepted by said bill acceptor-dispenser.

10. (Currently Amended) The method of claim 9, wherein said display ~~to provide a visual indication of the denomination of notes that said bill acceptor-dispenser will accept~~ is oriented on a runway surface of said bezel assembly.

11. (Currently Amended) The method of claim 9, wherein said display ~~to provide a visual indication of the denomination of notes that will be accepted~~ is oriented on a surface adjoining a runway surface of said bezel assembly.

12. – 17. (Cancelled).

18. (Currently Amended) A method ~~for using a vending machine~~ for vending products, the method comprising:

providing a cabinet and a door defining an inner cavity for holding ~~commercial~~ products for vending, ~~and including an opening for receiving a bill validator;~~

using a vending machine controller for controlling the operation of the vending machine
using a vending machine controller based on a standardized vending machine protocol program,
said protocol program allowing said vending machine to receive at most a five dollar
denomination bill and provide coins as change to complete any vending transaction;

receiving and dispensing money using a money handling system including a coin acceptor/changer and a bill acceptor-dispenser, including: for receiving and dispensing money,
the bill acceptor-dispenser disposed in the opening for receiving the bill validator;

~~said money-handling system being of a size and configuration to be received within said cabinet in the space and location provided for a bill validating device;~~

~~said bill acceptor-dispenser using:~~

~~a validator for determining the authenticity, and denomination[[,]] of notes inserted into said bill acceptor-dispenser as payment in a vending transaction and for generating signals for each received note;~~

~~a processor for receiving the validator signals and communicating with said vending machine controller;~~

~~a note box configured to receive and hold notes received as payment in a vending transaction by said bill acceptor-dispenser;~~

~~a note hopper for~~

~~storing at least some notes received as payment in a vending transaction of any of a plurality of selected denominations in a note hopper from which stored notes may be dispensed as change and selected to be dispensed as change in a later vending transaction by said bill acceptor-dispense; and~~

~~storing notes of denominations other than the selected denominations in a note box;~~

~~a transportation unit for directing notes determined to be authentic inserted into said bill acceptor-dispenser to one of said note box and said note hopper, based at least in part upon denomination of the inserted note; and for~~

~~dispensing notes from said note hopper as change in a vending transaction; and~~

~~said coin acceptor/changer receiving and validating coins at said coin acceptor/changer and generating a signal signifying receipt and value of received coins to said vending machine controller; and~~

~~programming said processor of said bill acceptor-dispenser with a program receiving as an input at a processor in said bill acceptor-dispenser a signal from said validator indicative of the actual denomination of the a note received as payment in a vending transaction and a signal from said vending machine controller indicative of the an amount of change to be dispensed as coins by said coin acceptor/changer[[,]]; and~~

~~using said bill acceptor-dispenser processor, then~~

determining a portion of the amount of change to be dispensed as notes from the note hopper and a remaining portion of the amount of change to be dispensed as coins; and the amount to be dispensed as paper currency and

outputting a control signal indicative of the notes to be dispensed by said bill acceptor-dispenser which controls the disbursement of currency and a signal to said coin acceptor/changer indicative of the an amount of coins to be dispensed by said vending machine for the completion of a vending transaction coin acceptor/changer.

19. (Currently Amended) A bill acceptor-dispenser for receiving and dispensing money in a vending machine for vending commercial products, said vending machine having a vending machine controller for controlling the configured to control operation of the vending machine based on a standardized vending machine protocol program allowing acceptance of first value notes in denominations only up to a first value limitation and a coin acceptor/changer for receiving and validating configured to receive and validate coins and generating to generate a signal signifying receive receipt and value of received coins to the vending machine controller; the bill acceptor-dispenser disposed in an opening designed for receiving a bill validator, said bill acceptor-dispenser comprising:

a validator for sensing data relating to the authenticity; configured to sense denomination; and type of notes inserted into said validator as payment in a vending transaction and for generating bill acceptor-dispenser and to generate signals corresponding to the sensed data denomination for each received inserted note; and

a processor controlling the validation; configured to receive the signals generated by the validator and to control acceptance and recognition of second value notes received as payment in a vending transaction up to a second value a note in a denomination exceeding said first value limitation, and for receiving and comparing said sensed data signals with stored data to validate the authenticity of said second value notes and for generating in response to acceptance of the note.

generate a signal signifying receipt and a designated value of said second value of a note having a denomination within the first value limitations of the standardized protocol to said vending machine controller;

a note box configured to receive and hold notes received by said bill acceptor-dispenser as payment in a vending transaction, and having a memory device attached to said note box;

a note hopper for storing notes received by said bill acceptor-dispenser as payment in a vending transaction and for providing change for a later vending machine transaction;

a transportation unit for directing said notes determined to be authentic to one of said note box and said note hopper and for dispensing notes as change from said note hopper in response to a signal from said processor; and

programming said processor of said bill acceptor-dispenser with a program receiving as an input a signal from said validator indicative of the actual denomination of the note received and

receive a signal from said vending machine controller indicative of the an amount of change to be dispensed based upon the note denomination signaled to said vending machine controller, and as coins by said coin acceptor/changer, said processor then determining the

determine an additional amount of change to be dispensed based upon the note denomination signaled to said vending machine controller and the actual denomination of the accepted note as coins and the amount to be dispensed as paper currency and outputting a control signal indicative of the notes to be dispensed by said bill acceptor-dispenser which controls the disbursement of currency and a signal to said coin acceptor/change indicative of the amount of coins to be dispensed by said vending machine for the completion of a vending transaction.

20. (Currently Amended) A vending machine of claim 19, wherein the bill acceptor-dispenser processor is further configured to comprising:

a cabinet for storing commercial products to be sold and having an opening for receiving a bill validator;

a vending machine controller for controlling the operation of the vending machine based on a standardized vending machine protocol program for accepting first value notes in denominations only up to a first value not exceeding five dollars;

a coin acceptor/changer for accepting and validating coins and dispensing coins as change upon command, and coin acceptor/changer located within said vending machine;

a bill acceptor dispenser disposed in the opening for receiving the bill validator, the acceptor dispenser for accepting and validating notes received as payment in a vending transaction, storing selected notes in a dispensable fashion for use as change in a later vending machine transaction and storing all other received notes received as payment in a vending transaction in a non-dispensable fashion;

said bill acceptor dispenser being within said vending machine and electrically coupled to said vending machine controller and said coin acceptor/changer for controlling the dispensing of coins and notes as change provided by said vending machine;

a Control Program controlling the validation, acceptance and recognition of notes up to a second value exceeding said first value and for controlling denominations of notes to be accepted by said bill acceptor dispenser control acceptance of notes having a denomination exceeding said first value limitation based at least in part upon the availability of notes held in a dispensable fashion, available to be dispensed as change and receiving as an input a signal indicative of the actual denominations of the note received and a signal from said vending machine controller indicative of the amount of change to be dispensed as coins by said coin acceptor/changer, said Control Program then determining the amount of change to be dispensed as coins and the amount to be dispensed as paper currency and outputting a control signal indicative of the notes to be dispensed by said bill acceptor dispenser which controls the disbursement of currency and a signal to said coin acceptor/change indicative of the amount of coins to be dispensed by said vending machine for the completion of a vending transaction.

Please add the following new claims:

21. (Newly Added) A note acceptor-dispenser for a vending machine suitable for vending drinks, candy, snacks or tobacco products, the note acceptor-dispenser comprising:

a connection for a multi-drop bus coupling the note acceptor-dispenser to a vending machine controller and a coin acceptor/dispenser;

a note hopper configured to store notes in a dispensable fashion;

a note box configured to store notes in a non-dispensable fashion;

an opening configured to receive notes inserted in the note acceptor-dispenser as payment in a vending transaction and to selectively dispense notes as change in the vending transaction;

a validator head configured to scan and validate received notes of any of a plurality of denominations;

a transportation unit configured to move a received note from the opening past the validator head to one of the note hopper and the note box, and to selectively move notes from the note hopper past the validator head; and

a unit controller coupled to the validator head and the transportation unit, the unit controller configured to receive an indication of denomination for received notes from the validator head and, in response to the indication of denomination, to direct movement of the received note by the transportation unit to either the note hopper or the note box, wherein at least some received notes of any of a plurality of selected denominations are directed to the note hopper and all remaining received notes are directed to the note box,

wherein the unit controller is configured to selectively direct movement of a note by the transportation unit from the note hopper to the opening as change in the vending transaction in response to one or more signals on the multi-drop bus from one of the vending machine controller and the coin acceptor/dispenser.

22. (Newly Added) The note acceptor-dispenser of claim 21, wherein the unit controller is configured to intercept a change dispense signal on the multi-drop bus from the vending machine controller to the coin acceptor/dispenser indicating an amount of change to be dispensed by the coin acceptor/dispenser in the vending transaction and, in response to the change dispense signal, to direct movement of a note by the transportation unit from the note hopper to the opening and to transmit a modified signal to the coin acceptor/dispenser reducing the amount of change to be dispensed by the coin acceptor/dispenser.

23. (Newly Added) The note acceptor-dispenser of claim 21, wherein the unit controller is configured to receive an instruction on the multi-drop bus from the coin acceptor/dispenser to dispense one or more notes in one or more of the selected denominations and, in response to the instruction, to direct movement of a note by the transportation unit from the note hopper past the validator head.

24. (Newly Added) The note acceptor-dispenser of claim 21, wherein the unit controller is configured to maintain a running accounting of a number of notes contained in the note hopper, and to direct movement of received notes of the selected denominations to the note hopper by the transportation unit until a programmable number of notes of the selected denominations within the note hopper is reached.

25. (Newly Added) The note acceptor-dispenser of claim 24, wherein the unit controller is configured to direct movement of received notes of the selected denominations to the note box by the transportation unit once the programmable number of notes of the selected denomination within the note hopper is reached.

26. (Newly Added) The note acceptor-dispenser of claim 21, wherein the unit controller is configured to direct movement by the transportation unit of all received notes of a denomination other than the selected denominations to the note box.

27. (Newly Added) A vending machine including the note acceptor-dispenser of claim 21, wherein the vending machine further comprises:

- a cabinet for storing items to be vended;

- the vending machine controller;

- the coin acceptor/dispenser;

- the multi-drop bus coupling the note acceptor-dispenser to the vending machine controller and the coin acceptor/dispenser,

wherein the vending machine controller is configured to calculate an amount of change to be dispensed in the vending transaction and to transmit a signal indicating the amount of change to be dispensed to one or both of the note acceptor-dispenser and the coin acceptor/dispenser.

28. (Newly Added) A vending machine including the note acceptor-dispenser of claim 21, wherein the vending machine further comprises:

- a cabinet for storing items to be vended;

- the vending machine controller;

the coin acceptor/dispenser;

the multi-drop bus coupling the note acceptor-dispenser to the vending machine controller and the coin acceptor/dispenser, wherein a change dispense signal from the vending machine controller is routed to the unit controller and not to the coin acceptor/dispenser,

wherein the unit controller is configured to receive a change dispense signal from the vending machine controller indicating an amount of change to be dispensed in the vending transaction and, in response to the change dispense signal, to direct movement of a note by the transportation unit from the note hopper past the validator head and to transmit a signal to the coin acceptor/dispenser indicating a remainder of the amount of change to be dispensed in the vending transaction by the coin acceptor/dispenser.

29. (Newly Added) A vending machine of claim 28, wherein the unit controller is configured to determine, based on the change dispense signal and a number of notes in the note hopper, whether at least part of the amount of change to be dispensed in the vending transaction should be as one or more notes from the note hopper.

30. (Newly Added) A vending machine including the note acceptor-dispenser of claim 21, wherein the vending machine further comprises:

a cabinet for storing items to be vended;

the vending machine controller;

the coin acceptor/dispenser;

the multi-drop bus coupling the note acceptor-dispenser to the vending machine controller and the coin acceptor/dispenser,

wherein the coin acceptor/dispenser is configured to receive a change dispense signal from the vending machine controller indicating an amount of change to be dispensed in the vending transaction and, in response to the change dispense signal, to transmit an instruction on the multi-drop bus to the note acceptor/dispenser to dispense one or more notes.

31. (Newly Added) A note acceptor-dispenser for a vending machine suitable for vending drinks, candy, snacks or tobacco products, the note acceptor-dispenser comprising:

a connection for a multi-drop bus coupling the note acceptor-dispenser to a vending machine controller and a coin acceptor/dispenser;

a note hopper configured to store notes in a dispensable fashion;

a note box configured to store notes in a non-dispensable fashion;

an opening configured to receive notes inserted in the note acceptor-dispenser as payment in a vending transaction and to selectively dispense notes as change in the vending transaction;

a validator head configured to scan, validate and identify a denomination of received notes of any of a plurality of denominations;

a transportation unit configured to move a received note from the opening past the validator head to one of the note hopper and the note box, and to selectively move notes from the note hopper past the validator head to the note box; and

a unit controller coupled to the validator head and the transportation unit, the unit controller configured to receive an indication of denomination for received notes from the validator head and, in response to the indication of denomination, to direct movement of the received note by the transportation unit to either the note hopper or the note box, wherein at least some received notes of any of a plurality of selected denominations are directed to the note hopper and all remaining received notes are directed to the note box,

wherein the unit controller is configured to receive one or more signals on the multi-drop bus from one of the vending machine controller and the coin acceptor/dispenser regarding an amount of change to be dispensed and, in response to the one or more signals, to selectively direct movement of a stored note by the transportation unit from the note hopper past the validator head to the note hopper if the stored note has a first of the plurality of selected denominations and to dispense the stored note as change in the vending transaction if the stored note has a second of the plurality of selected denominations.

32. (Newly Added) The note acceptor-dispenser of claim 31, wherein the transportation unit is configured to selectively move notes from the note hopper past the validator head to the opening, and wherein the stored note is dispensed change through the opening.

33. (Newly Added) The note acceptor-dispenser of claim 31, wherein the unit controller is configured to move stored notes having a first of the plurality of selected denominations until a stored note having the a second of the plurality of selected denominations is moved from the note hopper past the validator head.

34. (Newly Added) The note acceptor-dispenser of claim 31, wherein the unit controller is configured to maintain a running accounting of a number of notes contained in the note hopper and a denomination of each note contained in the note hopper.
